

Sheet 1 of 5

FORM PTO-1449	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. CELL4.17	SERIAL NO. 08/724,752
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		APPLICANT Kucherlapati et al.	
		FILING DATE 10/26/96	GROUP 1632

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLAS S	FILING DATE IF APPROPRIATE
<i>BH74</i>	4,950,599	8/21/90	Bertling	435	456	
	4,959,313	9/25/90	Taketo	435	69.1	
	5,204,244	4/20/93	Fell et al.	435	68	04/20/93
	5,545,806	8/13/96	Lonberg et al	800	202 6	08/13/96
	5,545,807	8/13/96	Surani et al.	800	202 6	08/13/96
<i>AM74</i>	5,569,825	10/29/96	Lonberg et al.	800	202 18	

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
<i>AM74</i>	EP 0 298 807 A1	6/17/88	EPO				
	EP 0 459 372 A3	5/28/91	EPO				
	EP 0 315 062 B1	5/10/89	EPO				
	EP 0 322 240 B1	6/28/89	EPO				
	EP 0 463 151 B1	1/2/92	EPO				
	WO 90/04036	4/19/90	PCT				
	WO 91/00906	1/24/91	PCT				
	WO 91/10741	7/25/91	PCT				
	WO 92/03918	3/19/92	PCT				
	WO 94/02602	2/3/94	PCT				
	WO 93/05165	3/18/93	PCT	C12N 15	87, 15/00		
<i>AM74</i>	WO 94/00569	1/6/94	PCT	C12N 15	00, 5/00		

EXAMINER

Karen M. Blanda

DATE CONSIDERED

12/15/99

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not conformance and not considered. Include copy of this form with next communication to applicant.

Sheet 2 of 5

FORM PTO-1449	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. CELL4.17	SERIAL NO. 08/724,752
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		APPLICANT Kucherlapati et al.	
		FILING DATE 10/26/96	GROUP 1632

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER INITIAL	
<i>JM</i>	Albertson, et al., "Construction and characterization of a yeast artificial chromosome library containing seven haploid human genome equivalents," <i>Proc. Natl. Acad. Sci. U.S.A.</i> 87:4256-4260 (1990).
	Ayares, et al., "Sequence homology requirements for intermolecular recombination in mammalian cells," <i>Proc. Natl. Acad. Sci. U.S.A.</i> 83:5199-5203 (1986).
	Berman, et al., "Content and organization of the human Ig V _h locus: definition of three new V _h families and linkage to the Ig C _h locus" <i>EBMO J</i> 7:727-738 (1988).
	Blankenstein, et al., "Immunoglobulin V _h region genes of the mouse are organized in overlapping clusters" <i>Eur. J. Immunol.</i> 17:1351-1357 (1987).
	Brinster, et al., "Introns increase transcriptional efficiency in transgenic mice," <i>Proc. Natl. Acad. Sci. U.S.A.</i> 85:836-840 (1988).
	Brownstein, et al., "Isolation of single-copy human genes from a library of yeast artificial chromosomes", <i>Science</i> 244:1348-1351 (1989).
	Bruggemann, et al., "Construction, function and immunogenicity of recombinant monoclonal antibodies," <i>Behring Inst. Mitt.</i> 87:21-24 (1990).
	Bruggemann, et al., "Human antibody production in transgenic mice: expression from 100 kb of the human IgH locus," <i>Eur. J. Immunol.</i> 21:1323-1326 (1991).
	Bruggemann, et al., "A repertoire of monoclonal antibodies with human heavy chains from transgenic mice," <i>Proc. Natl. Acad. Sci. U.S.A.</i> 86:6709-6713 (1989).
	Burke, et al., "Cloning of large segments of exogenous DNA into yeast by means of artificial chromosome vectors," <i>Science</i> 236:806-812 (1987).
	Buttin, et al., "Exogenous Ig rearrangement in transgenic mice: a new strategy for human monoclonal antibody production," <i>Trends in Genetics</i> 3(8):205-206 (1987).
	Davies, et al., 1992, "Targeted alterations in yeast artificial chromosomes for inter-species gene transfer," <i>Nucleic Acids Res.</i> 20:2693-2698 (1992).
	Dorfman, N.A. "The optimal technological approach to the development of human hybridomas," <i>Journal of Biological Response Modifiers</i> 4:213-239 (1986).
	Eliceiri, et al., "Stable integration and expression in mouse cells of yeast artificial chromosomes harboring human genes," <i>Proc. Natl. Acad. Sci. U.S.A.</i> 88:2179-2183 (1991).
<i>JM</i>	Garza, et al., "Mapping the <i>drosophila</i> genome with yeast artificial chromosomes with yeast artificial chromosomes", <i>Science</i> 246:641-646 (1989).

EXAMINER

Karen M. Knudsen

DATE CONSIDERED

12/15/99

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not conformance and not considered. Include copy of this form with next communication to applicant.

Sheet 3 of 5

FORM PTO-1449	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. CELL4.17	SERIAL NO. 08/724,752
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		APPLICANT Kucherlapati et al.	
		FILING DATE 10/26/96	GROUP 1632

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER INITIAL	
<i>KM</i>	Gnirke, <i>et al.</i> , "Cloning and <i>in vivo</i> expression of the human GART gene using yeast artificial chromosomes", <i>EMBO Journal</i> 10(7):1629-16-14 (1991).
	Huxley, <i>et al.</i> , "The human HPRT gene on a yeast artificial chromosome is functional when transferred to mouse cells by cell fusion," <i>Genomics</i> 9:742-750 (1991).
	Joyner, <i>et al.</i> , "Production of a mutation in mouse En-2 gene by homologous recombination in embryonic stem cells," <i>Nature</i> 338:153-155 (1989).
	Koller, <i>et al.</i> , "Inactivating the β 2-microglobulin locus in mouse embryonic stem cells by homologous recombination" <i>Proc. Nat'l Acad. Sci.</i> 86:8932-8935 (1989).
	Kucherlapati, R., "Homologous recombination in mammalian somatic cells," <i>Prog. Nucleic Acid Res. Mol. Biol.</i> 36:301-310 (1989).
	Matsuda, <i>et al.</i> , "Structure and physical map of 64 variable segments in the 3' 0.8- megabase region of the human immunoglobulin heavy chain locus," <i>Nature Genetics</i> 3:88-94 (1993).
	Mortensen, <i>et al.</i> , "Production of homozygous mutant ES cells with a single targeting construct," <i>Mol. Cell. Biol.</i> 12(5):2391-2395 (1991).
	Pachnis, <i>et al.</i> , "Transfer of a yeast artificial chromosome carrying human DNA from <i>Saccharomyces cerevisiae</i> into mammalian cells," <i>Proc. Natl. Acad. Sci. U.S.A.</i> 87:5109-5113 (1990).
	Pavan, <i>et al.</i> , "Modification and transfer into an embryonal carcinoma cell line of a 360-kilobase human-derived yeast artificial chromosome," <i>Mol. Cell. Biol.</i> 10(8):4163-4169 (1990).
	Sakano, <i>et al.</i> , "Identification and nucleotide sequence of a diversity DNA segment (D) of immunoglobulin heavy chain genes," <i>Nature</i> 290:562-565 (1981).
	Shimizu, <i>et al.</i> , "Immunoglobulin double-isotype expression by trans-mRNA in a human immunoglobulin transgenic mouse," <i>Proc. Natl. Acad. Sci. U.S.A.</i> 86:8020-8023 (1989).
	Shin, <i>et al.</i> , "Physical map of the 3' region of the human immunoglobulin heavy chain locus: clustering of autoantibody-related variable segments in one haplotype," <i>EMBO</i> 10:3641-3645 (1991).
	Taggart, <i>et al.</i> , "Stable antibody-producing murine hybridomas," <i>Science</i> 219:1228-1230 (1983).
	Thomas, <i>et al.</i> , "Site-directed mutagenesis by gene targeting in mouse embryo-derived stem cells," <i>Cell</i> 51: 503-512 (1987).
	Traver, <i>et al.</i> , "Rapid screening of a human genomic library in yeast artificial chromosomes for single-copy sequences," <i>Proc. Natl. Acad. Sci. U.S.A.</i> 86:5898-5902 (1989).
<i>KM</i>	Tucker, <i>et al.</i> , "Mouse IgA heavy chain gene sequence: implications for evolution of immunoglobulin hinge exons," <i>Proc. Natl. Acad. Sci. U.S.A.</i> 78:7684-7688 (1981).

EXAMINER

Karen M. Randa

DATE CONSIDERED

12/15/99

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not conformance and not considered. Include copy of this form with next communication to applicant.

Sheet 4 of 5

FORM PTO-1449	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. CELL4.17	SERIAL NO. 08/724,752
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		APPLICANT Kucherlapati et al.	
		FILING DATE 10/26/96	GROUP 1632

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER INITIAL	
<i>JM</i>	Yamamura, et al., "Cell-type specific and regulated expression of a human γ 1 heavy-chain immunoglobulin gene in transgenic mice", <i>Proc. Natl. Acad. Sci. U.S.A.</i> 83:2152-2156 (1986).
	Yancopoulos and Alt, <i>Cell</i> 40:271-281 (1985).
	Zachau, "The human immunoglobulin κ locus and some of its acrobatics, <i>Biol. Chem.</i> 371: 1-6 (1990).
	Aldhous, "Transgenic mice display a class (switching) act," <i>Science</i> 262:1212-1213 (1993).
	Berman, et al., "Content and organization of the human Ig V_H locus: definition of three new V_H families and linkage to the Ig C_H locus," <i>EMBO Journal</i> 7(3):727-738 (1988).
	Brüggemann, et al., "A repertoire of monoclonal antibodies with human heavy chains from transgenic mice," <i>Proc. Natl. Acad. Sci USA</i> 86:6709-6713 (1989).
	Choi, et al., "RNA splicing generates a variant light chain from an aberrantly rearranged K gene," <i>Nature</i> 286:776-779 (1980).
	Choi, et al., "Transgenic mice containing a human heavy chain immunoglobulin gene fragment cloned in a yeast artificial chromosome," <i>Nature Genetics</i> 4:117-123 (1993).
	Jakobovits, et al., "Germ-line transmission and expression of a human-derived yeast artificial chromosome," <i>Nature</i> 362:255-258 (1993).
	Joyner, et al., "Production of a mutation in mouse En-2 gene by homologous recombination in embryonic stem cells," <i>Nature</i> 338:153-156 (1989).
	Max, et al., "Sequences of five potential recombination sites encoded close to an immunoglobulin κ constant region gene," <i>Proc. Natl. Acad. Sci. USA</i> 76(7):3450-3454 (1979).
	Miller, et al., "Structural alterations in J regions of mouse immunoglobulin λ genes are associated with differential gene expression," <i>Nature</i> 295:428-430 (1982).
	Morrison, S. "Success is in the Specification," <i>Nature</i> , 369, pp. 812-813 (1994).
	Orkin, et al., "Mutation in an intervening sequence splice junction in man," <i>Proc. Natl. Acad. Sci. USA</i> 78(8):5041-5045 (1981).
	Rajewsky, et al., "Evolutionary and somatic selection of the antibody repertoire in the mouse," <i>Science</i> 238:1088-1094 (1987).
	Ramirez-Solis, et al., "Chromosome engineering in mice," <i>Nature</i> 378:720-724 (1995).
	Sakano, et al., "Sequences at the somatic recombination sites of immunoglobulin light-chain genes," <i>Nature</i> 280:288-294 (1979).
<i>JM</i>	Sakano, et al., "Two types of somatic recombination are necessary for the generation of complete immunoglobulin heavy-chain genes," <i>Nature</i> 286:676-683 (1980).

EXAMINER

Karen M. Handa

DATE CONSIDERED

12/15/99

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not conformance and not considered. Include copy of this form with next communication to applicant.

Sheet 5 of 5

FORM PTO-1449	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. CELL4.17	SERIAL NO. 08/724,752
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		APPLICANT Kucherlapati et al.	
		FILING DATE 10/26/96	GROUP 1632

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER INITIAL	
<i>KM</i>	Schedl, et al., "A method for the generation of YAC transgenic mice by pronuclear microinjection," <i>Nucleic Acids Research</i> 21(20):4783-4787 (1993).
	Schedl, et al., "A yeast artificial chromosome covering the tyrosinase gene confers copy number-dependent expression in transgenic mice," <i>Nature</i> 362:258-261 (1993).
	Seidman, et al., "A Mutant immunoglobulin light chain is formed by aberrant DNA- and RNA-splicing events," <i>Nature</i> 286:779-783 (1980).
	Shimizu, et al., "Immunoglobulin double-isotype expression by trans-mRNA in a human immunoglobulin transgenic mouse," <i>Proc. Natl. Acad. Sci. USA</i> 86:8020-8023 (1989).
	Strauss, et al., "Germ line transmission of a yeast artificial chromosome spanning the murine α_1 (1) collagen locus," <i>Science</i> 259:1904-1907 (1993).
	Capecchi et al., "Altering The Genome By Homologous Recombination," (1989) 244:1288-92.
	Doetschman et al., "Targeted Mutation Of The HPRT Gene In Mouse Embryonic Stem Cells," (1988) 85:8583-8587.
	Johnson et al., "Targeting Of Nonexpressed Genes In Embryonic Stem Cells Via Homologous Recombination," (1989) 245:1234-1236.
	Mansour et al., "Disruption of the Proto-oncogene Int-2 In Mouse Embryo-derived Stem Cells: A General Strategy For Targeting Mutations To Non-selectable Genes," (1988) 336:348-352.
	Schedl et al., "Transgenic Mice Generated By Pronuclear Injection Of A Yeast Artificial Chromosome," (1992) 20:3073-3077.
	Schwartzberg et al., "Germ-line Transmission Of A c-abl Mutation Produced By Targeted Gene Disruption In ES Cells," (1989) 246:799-803.
	Treisman et al., "Specific Transcription and RNA Splicing Defects In Five Cloned β -Thalassaemia Genes," (1983) 302:591-596.
	Zijlstra et al., "Germ-line Transmission Of A Disrupted β 2-Microglobulin Gene Produced By Homologous Recombination in Embryonic Stem Cells," (1989) 342:435-438.
	Green, L.L. et al., "Antigen-specific human monoclonal antibodies from mice engineered with human Ig heavy and light chain YACs," <i>Nat Genet.</i> 7, pp. 13-21 (1994)
<i>KM</i>	Emery, S.C. and Adair, J.R., "Humanised monoclonal Antibodies for Therapeutic Applications," <i>Expert Opinion on Investigation Drugs</i> , 3, pp. 241-251 (1994)

EXAMINER

Karen M. Flanda

DATE CONSIDERED

12/15/99

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not conformance and not considered. Include copy of this form with next communication to applicant.